I claim:

1. A method of generating a cipher for recognition of an energy function derived from an entity, comprising the steps of:

(a) scanning said energy function to produce a temporal waveform with a plurality of zero crossings;

(b) dividing said waveform into a plurality of indexed temporal cells;

(c) generating descriptors identifying temporal-cell indices and crossing polarities at zero crossings; and

(d) combining said descriptors to generate said cipher.

2. The method of Claim 1 which comprises the further steps of:

(e) copying a plurality of said ciphers into initial templates;

(f) performing a one-many comparison between descriptors in a first template and descriptors in a second template;

(g) computing a cross-correlation score between said first template and said second template, wherein said score is increased when compared descriptors in said templates match, and is decreased when compared descriptors in said templates do not match;

(h) selecting a pair of said initial templates exhibiting a highest cross-correlation score;

(i) identifying a disjunct descriptor that resides in only a single member of said pair; and

(j) increasing a scoring weight of said disjunct descriptor in said

single member.

3. The method of Claim 2 which comprises the further step of:

(j) increasing a scoring weight of said disjunct descriptor by repeating said disjunct descriptor in said member.

4. The method of Claim 2 which comprises the further steps of:

(k) placing said disjunct descriptor at a selected location in said member; and

(l) increasing a scoring weight at said location.

5. The method of Claim 2 which comprises the further steps of:

(m) attaching a symbol to said disjunct descriptor; and

(n) during a scoring process increasing the scoring weight of a descriptor carrying said symbol.

6. The method of Claim 2 which comprises the further steps of:

(o) inserting said enhanced descriptor into said single member; and

(p) repeating steps (h), (i), and (j) of Claim 2 with said enhanced-descriptor insertions until said highest cross-correlation score cannot be further reduced.

7. A method of determining the degree to which a cipher derived from an unknown entity matches that of a known entity, comprising the steps of:

(a) performing one-many comparisons between each descriptor in an edited template carrying an enhanced descriptor and representing said known entity, and every descriptor in said cipher;

(b) accruing a score in which matching descriptors in said comparisons cause said score to increase and non-matching descriptors cause said score to decrease, wherein said score represents a degree of match between said unknown entity and said known entity.

8. A device for producing a temporal waveform in response to an energy signal derived from an entity comprising:

waveform processing means to produce a zero crossing in said waveform;

timing means to provide an index of said zero crossing;

descriptor-generating means to combine an indicator of crossing direction with said zero crossing in a descriptor; and

combining means to merge a plurality of said descriptors into a cipher representing said entity.

9. The device of Claim 8 further comprising:

template-storing means to store a plurality of said ciphers as initial templates representing said entities.

10. The device of Claim 9 further comprising:

one-many comparison means to compare each descriptor in a first

initial template to every descriptor in a second initial template;

scoring means to increase a score when said comparison finds a descriptor match, and to decrease said score when descriptors do not match; and

summing means to combine said descriptor scores into a cross-correlation measure between said first and second initial templates.

11. The device of Claim 10 further comprising:

first selection means to identify a pair of said initial templates exhibiting a highest cross-correlation measure;

second selection means to identify a disjunct descriptor residing in only one member of said pair; and

weight-scaling means to assign an increased scoring weight to said disjunct descriptor.

12. The device of Claim 11 further comprising:

stepping means to repeat said pair selection, said disjunct-descriptor selection, and said weight-scaling until said highest cross-correlation measure does not further reduce; and

storage means to retain all final templates as representations of said entities.

13. A device to recognize a cipher representing an energy signal derived from an entity comprising:

an edited entity template;

one-many comparison means to compare each descriptor in said edited template to every descriptor in said cipher;

scoring means to increase a score when said comparison finds a descriptor match, and to decrease said score when descriptors do not match; and

summing means to combine said descriptor scores into an auto-correlation measure between said cipher and said edited template, whereby said measure comprises a degree of recognition.